UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

08/20/2009

FROMMER LAWRENCE & HAUG, LLP. 10TH FLOOR 745 FIFTH AVENUE NEW YORK, NY 10151 EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT PAPER NUMBER

2621

DATE MAILED: 08/20/2009

| APPLICATION NO. | FILING DATE | NG DATE FIRST NAMED INVENTOR | | CONFIRMATION NO. | |
|-----------------|-------------|------------------------------|----------------|------------------|--|
| 10/631.348 | 07/31/2003 | Tetsuiiro Kondo | 450101-02499.1 | 3471 | |

TITLE OF INVENTION: INFORMATION PROCESSING APPARATUS

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 11/20/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450 (571)-273-2885 or <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 7590 08/20/2009 Certificate of Mailing or Transmission FROMMER LAWRENCE & HAUG, LLP. I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. 10TH FLOOR 745 FIFTH AVENUE NEW YORK, NY 10151 (Depositor's name (Signature (Date APPLICATION NO. FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE 10/631,348 07/31/2003 Tetsujiro Kondo 450101-02499.1 3471 TITLE OF INVENTION: INFORMATION PROCESSING APPARATUS APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1510 \$300 \$0 \$1810 11/20/2009 **EXAMINER** ART UNIT CLASS-SUBCLASS RAO, ANAND SHASHIKANT 2621 348-700000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. (2) the name of a single firm (having as a member a ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. ☐ Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this fo Advance Order - # of Copies _ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ■ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|----------------------------|----------------------|--------------------------------|------------------|
| 10/631,348 | 07/31/2003 Tetsujiro Kondo | | 450101-02499.1 | 3471 |
| 75 | 90 08/20/2009 | | EXAM | INER |
| FROMMER LAWRENCE & HAUG, LLP. | | | RAO, ANAND SHASHIKANT | |
| 10TH FLOOR | · | | ART UNIT | PAPER NUMBER |
| 745 FIFTH AVENUE NEW YORK, NY 10151 | | | 2621 DATE MAILED: 08/20/200 | 9 |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1202 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1202 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

| | Application No. | Applicant(s) | |
|---|--|--|-----------------|
| | 10/021 240 | KONDO ET AL | |
| Notice of Allowability | 10/631,348 Examiner | KONDO ET AL. Art Unit | |
| · | | | |
| | Andy S. Rao | 2621 | |
| The MAILING DATE of this communication appears All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF the Office or upon petition by the applicant. See 37 CFR 1.313 | (OR REMAINS) CLOSED in or other appropriate commu IGHTS. This application is s | this application. If not included nication will be mailed in due cours | se. THIS |
| 1. 🔀 This communication is responsive to the Interview Summa | <u>ry of 5/12/09</u> . | | |
| 2. X The allowed claim(s) is/are 1-6, 9-13, 22-27, 30-34, 43-48, | 51-55 and 64-69 (respective | ely renumbered as claims 1-39). | |
| 3. Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have | | or (f). | |
| Certified copies of the priority documents have | · · | | |
| Copies of the certified copies of the priority do | cuments have been received | I in this national stage application f | rom the |
| International Bureau (PCT Rule 17.2(a)). | | | |
| * Certified copies not received: | | | |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. | | a reply complying with the requirer | nents |
| 4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give | | | E OF |
| 5. CORRECTED DRAWINGS (as "replacement sheets") mus | st be submitted. | | |
| (a) including changes required by the Notice of Draftspers | on's Patent Drawing Review | (PTO-948) attached | |
| 1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date | | | |
| (b) ☐ including changes required by the attached Examiner's Paper No./Mail Date | s Amendment / Comment or | in the Office action of | |
| Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t | | | i) of |
| 6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT | | | :he |
| | | | |
| Attachment(s) 1. ☐ Notice of References Cited (PTO-892) | 5. □ Notice of Int | ormal Patent Application | |
| Induce of References Cited (PTO-092) Induce of References Cited (PTO- | | ımmary (PTO-413), | |
| , | Paper No./ | Mail Date | |
| 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date | /. 🔼 Examiner's | Amendment/Comment | |
| 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material | | Statement of Reasons for Allowand | e |
| | 9. | • | |
| /Andy S. Rao/ | | | |
| Primary Examiner, Art Unit 2621 | | | |
| | | | |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas Presson (#41,442) on 5/12/09.

The application has been amended as follows:

In The Claims:

A). Claim 1 is replaced with the following:

"An apparatus comprising:

memory means for storing relationship information generated by:

learning based on camera motion estimation information for learning expressing motion of a video camera, which is detected by a desired image signal picked up by the video camera;

camera motion information for learning expressing physical motion of the video camera, which was obtained by a sensor for detecting physical motion at the same time when the desired image signal was picked up by the video camera;

camera motion estimation information detection means for detecting camera motion estimation information with respect to an inputted image signal, from the inputted image signal;

and camera motion prediction information generation means for generating camera motion prediction information with respect to the inputted image signal, based on the camera motion estimation information of the inputted image signal detected by the camera motion estimation information detection means and the relationship information;

wherein the desired image signal is a signal obtained for learning processing that is performed automatically by a learning section of said apparatus.".

B). Claim 22 is replaced by the following:

"An information processing method executable by a processor, the method comprising the steps of:

generating relationship information generated by:

learning based on camera motion estimation information for learning expressing motion of a video camera, which is detected by a desired image signal picked up by the video camera;

camera motion information for learning expressing physical motion of the video camera, which was obtained by a sensor for detecting physical motion at the same time when the desired image signal was picked up by the video camera; detecting camera motion estimation information with respect to an inputted image signal, from the inputted image signal;

and generating camera motion prediction information with respect to the inputted image signal, based on the camera motion estimation information of the inputted image signal detected and the relationship information;

wherein the desired image signal is a signal obtained for learning processing that is performed automatically by a learning section of a learning apparatus.".

C) Claim 43 is replaced by the following:

"A computer-readable storage medium storing a program that when executed by a computer causes the computer to execute information processing, the program comprising the steps of: generating relationship information generated by:

Page 4

learning based on camera motion estimation information for learning expressing motion of a video camera, which is detected by a desired image signal picked up by the video camera;

camera motion information for learning expressing physical motion of the video camera, which was obtained by a sensor for detecting physical motion at the same time when the desired image signal was picked up by the video camera;

detecting camera motion estimation information with respect to an inputted image signal, from the inputted image signal;

generating camera motion prediction information with respect to the inputted image signal, based on the camera motion estimation information of the inputted image signal detected and the relationship information;

wherein the desired image signal is a signal obtained for learning processing that is performed automatically by a learning section of a learning apparatus.".

D). Claim 64 is replaced by the following:

"An information processing method executable by a processor, the method comprising the steps of:

detecting from an inputted image signal camera motion information with respect to the inputted image signal;

detecting camera motion prediction information with respect to the inputted image signal, based on the detected camera motion information and relationship information generated by:

learning based on camera motion estimation information for learning that expresses motion of a video camera, which is detected by a desired image signal picked up by the video camera;

camera motion information for learning that expresses physical motion of the video camera, obtained by a sensor for detecting physical motion at the same time that the desired image signal was picked up;

wherein the desired image signal is a signal obtained for learning processing that is performed automatically by a learning section of a learning apparatus.".

E). Claim 67 is replaced by the following:

"A computer-readable storage medium for storing a program that when executed by a computer processes information, the program comprising the steps of:

detecting from an inputted image signal camera motion information with respect to the inputted image signal;

and detecting camera motion prediction information with respect to the inputted image signal, based on the detected camera motion information and relationship information generated by:

learning based on camera motion estimation information for learning that expresses motion of a video camera, which is detected by a desired image signal picked up by the video camera;

camera motion information for learning that expresses physical motion of the video camera, obtained by a sensor for detecting physical motion at the same time that the desired image signal was picked;

Application/Control Number: 10/631,348 Page 6

Art Unit: 2621

wherein the desired image signal is a signal obtained for learning processing that is performed automatically by a learning section of a learning apparatus.".

F). Claims 14-15, 18-21, 35-36, 39-42, 56-57, 60-63, 70-80 are canceled.

REASONS FOR ALLOWANCE

- 2. The following is an examiner's statement of reasons for allowance of claims 1-6, 9-13, 22-27, 30-34, 43-48, 51-55 and 64-69. Independent claims 1, 22, 43, 64, and 67 are directed towards an information processing method and apparatus and recites "...based on camera motion estimation information for learning expressing motion of a video camera, which is detected by a desired image signal picked up by the video camera; camera motion information for learning expressing physical motion of the video camera, which was obtained by a sensor for detecting physical motion at the same time when the desired image signal was picked up by the video camera; camera motion estimation information detection means for detecting camera motion estimation information with respect to an inputted image signal, from the inputted image signal; and camera motion prediction information generation means for generating camera motion prediction information with respect to the inputted image signal, based on the camera motion estimation information of the inputted image signal detected by the camera motion estimation information detection means and the relationship information..." which are features that are not anticipated nor obvious over art of record. Dependent claims 2-6, 9-13, 23-27, 30-34, 44-48, 51-55, 65-66, and 68-69 are allowed for the reasons concerning the independent claims.
- 3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Application/Control Number: 10/631,348 Page 7

Art Unit: 2621

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The

examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao Primary Examiner

Art Unit 2621

asr

/Andy S. Rao/

Primary Examiner, Art Unit 2621

August 15, 2009